Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-31. (Canceled).

32. (New) A metal-insulator-semiconductor device comprising:

a first drain region;

a body region disposed on a first surface of said first drain region;

a gate region extending through said body region and partially into said first drain region;

a source region disposed between a first portion of said body region and a first portion of said gate region;

a first insulative layer disposed between said source region and said first portion of said gate region and between said body region and a second portion of said gate region, wherein said first insulative layer has a first thickness; and

a second insulative layer disposed at least partially between a first portion of said first drain region and a third portion of said gate region and adjacent to said first insulative layer, wherein said second insulative layer has a second thickness that is greater than said first thickness and wherein said second insulative layer is not formed by oxidizing said first drain region.

33. (New) The metal-insulator-semiconductor device according to Claim 32, wherein said gate region comprises polysilicon.

34. (New) The metal-insulator-semiconductor device according to Claim 32, further comprising a highly conductive region of formed in said first drain region adjacent said third portion of said gate region.

35. (New) The metal-insulator-semiconductor device according to Claim 32, wherein said first insulative layer comprises an oxide.

36. (New) The metal-insulator-semiconductor device according to Claim 32, wherein said second insulative layer is selected from the group consisting of phosphosilicate glass and borophosphosilicate glass.

37. (New) The metal-insulator-semiconductor device according to Claim 32, wherein a thickness of said second insulative layer is in the range of approximately 0.1 to 0.3 μm.

38. (New) The metal-insulator-semiconductor device according to Claim 32, wherein a thickness of said first insulative layer is in the range of approximately 100-1000 Å.

39. (New) The metal-insulator-semiconductor device according to Claim 32, wherein said second insulative layer does not introduce substantial stress in said first drain region.

40. (New) A metal-insulator-semiconductor device comprising:

a first drain region;

a body region disposed on a first surface of said first drain region;

a gate region extending through said body region and partially into said first drain region;

a source region disposed between a first portion of said body region and a first portion of said gate region;

an oxide layer disposed between said source region and said first portion of said gate region, between a second portion of said body region and a second portion of said gate region and between a first portion of said first drain region and a third portion of said gate region, wherein said oxide layer has a first thickness; and

an insulative layer, selected from a group of material consisting of phosphosilicate glass and borophosphosilicate glass, disposed between a second portion of said first drain region and a fourth portion of said gate region and coupled to said oxide layer, wherein said insulative layer has a second thickness that is greater than said first thickness.

41. (New) The metal-insulator-semiconductor device according to Claim 40, wherein said first drain region comprises a semiconductor of a first conductive type.

42. (New) The metal-insulator-semiconductor device according to Claim 40, wherein said body region comprises a semiconductor of a second conductive type.

43. (New) The metal-insulator-semiconductor device according to Claim 40, wherein said source region comprises a semiconductor of a first conductive type.

44. (New) The metal-insulator-semiconductor device according to Claim 40, further comprising a second drain region disposed on a second surface of said first drain region, wherein said second surface is opposite said first surface.

45. (New) The metal-insulator-semiconductor device according to Claim 44, wherein said second drain region comprises a semiconductor of a first conductive type semiconductor.

46. (New) A metal-insulator-semiconductor device comprising:

a first drain region;

a body region disposed above said first drain region;

a gate region extending through said body region and partially into said first drain region;

a source region disposed between a first portion of said body region and a first portion of said gate region;

a silicon dioxide layer disposed between said source region and said first portion of said gate region, between a second portion of said body region and a second portion of said gate

region and between a first portion of said first drain region and a third portion of said gate region, wherein said silicon dioxide layer has a first thickness; and

an insulative layer, selected from a group of material consisting of phosphosilicate glass and borophosphosilicate glass, disposed between a second portion of said first drain region and a fourth portion of said gate region and coupled to said silicon dioxide layer, wherein said insulative layer has a second thickness that is greater than said first thickness.

47. (New) The metal-insulator-semiconductor device according to Claim 46, wherein said first drain region comprises a lightly n doped semiconductor.

48. (New) The metal-insulator-semiconductor device according to Claim 47, wherein said body region comprises a p-doped semiconductor.

49. (New) The metal-insulator-semiconductor device according to Claim 48, wherein said source region comprises a heavily n-doped semiconductor.

50. (New) The metal-insulator-semiconductor device according to Claim 49, further comprising a second drain region disposed below said first drain region.

51. (New) The metal-insulator-semiconductor device according to Claim 50, wherein said second drain region comprises a heavily n-doped semiconductor.

52. (New) The metal-insulator-semiconductor device according to Claim 51, wherein said gate region comprises polysilicon.

53. (New) The metal-insulator-semiconductor device according to Claim 52, further comprising an n-doped semiconductor region disposed in said first drain region adjacent said fourth portion of said gate region.

54. (New) The metal-insulator-semiconductor device according to Claim 46, wherein a thickness of said insulative layer is in the range of approximately 0.1 to 0.3 μm.

55. (New) The metal-insulator-semiconductor device according to Claim 54, wherein said insulative region does not introduce substantial stress in said drain region.

56. (New) The metal-insulator-semiconductor device according to Claim 54, wherein a thickness of said silicon dioxide layer is in the range of approximately 100-1000 Å.